

A NEW SUBGENUS OF NORTH AMERICAN SAPRINUS

(Coleoptera, Histeridae)

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This new division as defined below is proposed for a rather closely related group of species of *Saprinus* which differ abruptly from other members of the genus by characters deemed of sufficient importance to place the group in a more significant position than any of the group divisions of *Saprinus* adopted by Horn in 1873. Two of the species included in the new division, *opacus* Horn and *carinifer* Fall, have previously been assigned to groups of *Saprinus*, the former to group II and the latter to an intermediate position between groups I and II. Two additional species are herein described.

Eremosaprinus Ross, new subgenus

Very broadly oval, moderately convex, sides of pronotum and elytra continuously arcuate. Head with front unmargined, supra-orbital striæ very feeble; vertex, clypeus, labrum and mandibles rugoso-punctate, clypeus shallowly impressed. Pronotum nearly twice as wide as long; sides strongly convergent, only feebly arcuate laterally, abruptly rounded at apical angles; frontal emargination broad, shallow; basal margins nearly straight, converging at scutellum in a sharply defined broad obtuse angle; surface punctate throughout, strongly longitudinally rugulose in lateral third. Elytra subevenly punctate throughout; disc striate, striæ finely carinate along outer edges, more strongly so basally; fourth dorsal stria arched at base and joining the sutural stria which may be obsolete basally in some species. Propygidium not prominent. Pygidium large, equilaterally triangulate, nearly flat in basal two-thirds, abruptly convex apically; evenly but not strongly punctate. Prosternum elevated, surface broad, nearly flat, moderately sloping forward, sides vertical; inner pair of striæ horizontal, sinuate, arcuately converging apically and in some species meeting; striæ definitely limit the flat face of the prosternum; outer pair of striæ on vertical sides obsolete. Pro-tibiæ broad, thin; four- to seven-denticulate. Tarsal claws long and slender, feebly curved, subequal, fused in some species.

Type: *Saprinus* (*Eremosaprinus*) *unguiculatus* Ross, n. sp.

The species in this division have the general facies of certain members of *Saprinus* s. str., but aside from this superficial

resemblance bear no close relationship. In the form of the prosternum there is an approach to that found in the genus *Gnathoncus*, differing, however, in not being sharply narrowed anteriorly and in sloping forward rather than toward the mesosternum.

The subgenus consists of four species which form a very homogeneous group. These species are apparently confined to Lower California and the arid regions of Southern California and are very rare in collections.

KEY TO SPECIES OF EREMOSAPRINUS

- A. Surface smooth or only faintly alutaceous, shining; sutural striæ of elytra entire, strong.
 - B. Inner subhumeral striæ of elytra obsolete, first dorsal striæ deeply impressed; prosternal striæ joining anteriorly (1) *unguiculatus*
 - BB. Inner subhumeral striæ of elytra present, entire, first dorsal striæ only moderately impressed; prosternal striæ interrupted anteriorly, tips terminating in small foveæ (2) *falli*
- AA. Surface strongly alutaceous, dull; sutural striæ of elytra obsolete basally.
 - B. Prosternal striæ united apically (4) *opacus*
 - BB. Prosternal striæ interrupted apically (3) *carinifer*

(1) *Saprinus* (*Eremosaprinus*) *unguiculatus* Ross, new species

Very broadly oval, convex, black, surface shining, partially and faintly alutaceous; legs dark rufous. Head finely rugose-punctate; front with a distinct shallow impression. Pronotum slightly less than twice as wide as long, sides converging, rounded slightly at base, more strongly so at apical angles; punctures fine, sparse medially, gradually becoming denser and more elongate laterally, finally longitudinally rugulose along sides; hypomera very finely and sparsely pubescent. Elytra one-third wider at basal fourth than sutural length; surface subevenly sparsely punctate, punctures almost obsolete outside of first dorsal striæ, denser at apical third; dorsal striæ raised, more strongly so basally, almost unimpressed except for the entire first dorsal which is deeply grooved; marginal stria fine, almost obsolete medially; external subhumeral short, basal, deeply impressed, present in basal third; internal subhumeral entirely obsolete; oblique humeral moderately impressed, present in basal third, subparallel to first dorsal; second dorsal somewhat shorter than first, hooked inward at base; third dorsal equal in length to second,

sharply arched at base and joining arch of fourth dorsal; fourth dorsal stria abbreviated half way toward apex, broadly arched at base and joining sutural stria which is entire. Pygidium alutaceous, median punctures sparse, indistinct, closer and more distinct laterally and apically. Prosternum with striae only feebly sinuate, joined anteriorly in an abrupt arch. Protibiae five-dentate. Tarsal claws of all legs long, slender, subequal, fused, appearing as a single claw, three-fourths length of terminal tarsal segment. Length 3 mm., width 2.75 mm.

Holotype, female (No. 4777, Mus., Calif. Acad. Sci., Ent.) (Blaisdell Collection) and three female paratypes all from La Puerta, San Diego County, California, collected by Mr. G. H. Field. Two paratypes are deposited in the Museum of the San Diego Society of Natural History, San Diego, California, and one in the collection of the writer.

This species is peculiar in having its tarsal claws fused, whereas they are separate in the other known species of the subgenus. The complete absence of the inner humeral striae of the elytra and the deeply grooved first dorsal striae are additional features peculiar to this species. Very little variation is exhibited by the four specimens at hand.

(2) *Saprinus* (*Eremosaprinus*) *falli* Ross, new species

Very broadly oval, convex, color dark ferrugineous*, surface shining, not alutaceous. Head rugoso-punctate in front, punctures more distinct at vertex; front with a distinct shallow impression. Pronotum almost twice as wide at base as long, sides convergent, straight, evenly rounded apically, surface finely, sparsely punctate baso-medially, punctures becoming longer and more elongate medio-laterally, longitudinally rugulose at sides; hypomera finely, sparsely pubescent, hairs not visible from above. Elytra one-third wider at basal fourth than the sutural length, surface subevenly sparsely punctate, sparser at sides and denser in apical third; dorsal striae very lightly impressed; marginal striae fine, entire; outer subhumeral deep, short, basal; inner subhumeral fine, entire, abbreviated slightly at apex; oblique humeral distinct, extending one-third of elytral length, not joining first dorsal at base; first dorsal entire, moderately impressed; second and third subequal, terminating at apical fourth of elytra, strongly hooked inward at base, hook of third dorsal not quite joining arch of fourth dorsal; fourth dorsal slightly shorter than last two striae, sharply sub-

*Light color probably due to immaturity.

angulately arched at base and uniting with the entire sutural stria. Pygidium moderately punctate, punctures somewhat finer and denser at sides and apex. Prosternum broad, short; striæ moderately sinuate, not uniting anteriorly but terminating in small but distinct widely separate foveæ; surface minutely sparsely punctate. Anterior tibiæ broad, thin, four-dentate. Tarsal claws long, slender, two-thirds length of terminal tarsal segment, not fused; outer claw three-fourths length of the inner. Length 3.25 mm., width 3 mm.

Holotype, male (No. 4778, Mus. Calif. Acad. Sci., Ent.) from Kings County, California, April, 1933.

The anterior foveæ of the prosternum are not present in the other species of the subgenus, the dorsal striæ of the elytra are also peculiar, being longer and more parallel than in any of the other species.

This interesting species is named for Dr. H. C. Fall, who has contributed much to the increase of our knowledge of North American Histeridæ.

(3) *Saprinus* (*Eremosaprinus*) *carinifer* Fall

Saprinus carinifer Fall, 1917, Can. Ent. 49:167.

The original description adequately describes this species. The following notes kindly made for me from the type specimen by Dr. Fall are desirable additions however:

Prosternum with striæ "sensibly less" widely separated at middle than at base; interrupted anteriorly but "without trace of small foveæ." "Tarsal claws slender, completely free and about two-thirds or three-fourths as long as the last tarsal joint."

This species was collected by Mr. G. H. Field, as was *unguiculatus*, in the mountains on the western border of the Colorado Desert in California, perhaps not far from La Puerta. In spite of their being from the same general locality, the two species are very distinct, *unguiculatus* being immediately separable by its shining surface, the absence of inner humeral striæ and by the long fused tarsal claws.

(4) *Saprinus* (*Eremosaprinus*) *opacus* Horn

Saprinus opacus Horn, 1894, Proc. Calif. Acad. Sci. (2) 4:364.

The following summary of characters of this species was made

by the writer from the type specimen in the museum of the California Academy of Sciences (Type No. 15).

Broadly oval; surface dull, finely, evenly alutaceous throughout. Discal area of pronotum finely, evenly punctate, punctures separated by interspaces three times width of punctures; lateral rugulose areas extending well up toward discal area, but decreasing in strength. Elytra strongly punctate, abruptly finer along suture within confines of fourth dorsal; outer marginal stria strong, entire; outer humeral stria oblique, joining outer marginal at base and extending apically one-fourth elytral length; inner humeral stria fine, subentire, abbreviated near apex; oblique humeral stria very faint, barely traceable by a weak impression; dorsal striae not hooked inward basally; first three striae carinate, first and second subequal in length extending nearly to apex, third shorter extending to apical fourth; fourth dorsal stria and sutural stria much finer than other dorsals, the fourth terminating slightly within apical half and arching basally, sutural stria obsolete in basal half. Pygidium strongly, closely, evenly punctate, punctures unevenly quadrate in shape. Prosternum somewhat depressed; striae sinuous, meeting apically; anteriorly deeply unevenly impressed. Legs dark rufous; protibiae seven-denticulate; tarsal claws long, slender, separate, three-fourths length of terminal tarsal segment. Length: 3.5 mm.

Described by Horn from a single example collected at San Jose del Cabo, Lower California.

The writer, who recently collected throughout Lower California, was unsuccessful in an attempt to secure additional specimens of this species while at San Jose del Cabo during July of 1938.

Carinifer and *opacus* are apparently very closely related, if not identical. The difference in the apical condition of the prosternal striae, as indicated in the key and the descriptions, seems to be the most reliable point for separating the two.

The writer wishes to express thanks to Dr. H. C. Fall for his useful notes concerning the type of *carinifer*, to Mr. E. P. Van Duzee for granting permission to study the type of *opacus* deposited in the California Academy of Sciences, to Dr. F. E. Blaisdell for material loaned from his collection, and to Clinton G. Abbot and Ian Moore for a loan of three specimens of *unguiculatus* from the Field Collection in the Museum of the San Diego Society of Natural History.